

Claims

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is as follows:

1 1. A lighted sign for application to a surface of a vehicle, said lighted sign
2 comprising:

3 a first metallic layer;

4 a second metallic layer;

5 a magnetic plate for removable magnetic adherence to the vehicle surface, said
6 magnetic plate being sandwiched between said first and second metallic layers
7 for pressing said second metallic layer against the vehicle surface when said
8 magnetic plate is magnetically adhered thereto; and

9 a light source coupled to said magnetic plate and having a positive wire electrically
10 connected to said first metallic layer and a negative wire electrically connected to
11 said second metallic layer, said positive wire being electrically connected to a
12 vehicle electric power source.

1 2. The lighted sign as in claim 1 wherein said magnetic plate and said first
2 metallic layer define correspondingly shaped cutouts such that said light source emits light
3 therethrough when energized.

1 3. The lighted sign as in claim 2 further comprising a translucent layer
2 sandwiched between said magnetic plate and said first metallic layer for diffusing light
3 emitted from said light source.

1 4. The lighted sign as in claim 3 wherein said translucent layer includes a raised
2 portion extending through said cutout of said first metallic layer.

 5. The lighted sign as in claim 1 wherein said light source includes a plurality of
light emitting diodes (LED's).

1
1 6. The lighted sign as in claim 2 wherein:
2 said second metallic layer includes a configuration corresponding to a configuration of
3 respective cutouts of said magnetic plate and said first metallic layer; and
4 said light source includes a plurality of light emitting diodes (LED's) arranged
5 according to said configuration of said second metallic layer, each LED having
6 an LED negative wire in electrical contact with said second metallic layer.

1 7. The lighted sign as in claim 6 wherein:
2 each LED includes an LED positive wire; and
3 said first metallic layer includes a first portion and a second portion electrically
4 separated from said first portion, said first portion being electrically connected to
5 a first predetermined group of said LED's and said second portion being
6 electrically connected to a second predetermined group of said LED's for
7 selectively energizing said first and second groups.

1 8. The lighted sign as in claim 1 further comprising a mounting plate configured
2 for fixed attachment to the vehicle surface, whereby said magnetic plate may be removably
3 and magnetically adhered to said mounting plate with said second metallic layer being
4 pressed against said mounting plate when said magnetic layer is adhered thereto.

1 9. The lighted sign as in claim 1 further comprising:
2 a microcontroller electrically connected to said light source;
3 sensor means for communicating environmental conditions to said microcontroller; and
4 means in said microcontroller for selectively energizing said light source according to
5 respective environmental conditions.

1 10. The lighted sign as in claim 1 wherein said first and second metallic layers
2 include a foil construction.

1 11. A lighted sign for magnetic application to a metallic surface of a vehicle,
2 comprising:

3 a magnetic plate for magnetic attachment to the vehicle surface, said magnetic plate
4 defining a magnetic plate cutout;

5 a first metallic layer connected to a front surface of said magnetic plate and defining a
6 first layer cutout corresponding to said magnetic plate cutout, said first magnetic
7 layer being electrically connected a vehicle electrical power source;

8 a second metallic layer connected to a rear surface of said magnetic plate, said second
9 metallic layer having a circumference smaller than a circumference of said
10 magnetic plate such that said second metallic layer is sandwiched between said
11 magnetic plate and the vehicle surface when said magnetic layer is magnetically
12 attached to the vehicle surface; and

13 a plurality of LED's coupled to said magnetic plate, each LED having a positive and
14 negative wire, each positive wire being electrically connected to said first
15 metallic layer and each negative wire being electrically connected to said
16 negative layer such that said plurality of LED's are illuminated and grounded
17 when said positive layer is energized and said magnetic plate is magnetically
18 attached to the vehicle surface.

1 12. The lighted sign as in claim 11 wherein said first metallic layer includes a
2 first portion and a second portion electrically separated from said first portion, said first
3 portion being electrically connected to a first group of said LED's and said second portion
4 being electrically connected to a second group of said LED's for selectively energizing said
5 first and second groups.

1 13. The lighted sign as in claim 11 wherein said first metallic layer includes a
2 first metallic layer cutout having a configuration substantially similar to a configuration of
3 said magnetic plate cutout such that said plurality of LED's emit light therethrough when
4 energized.

1 14. The lighted sign as in claim 13 further comprising a translucent layer
2 sandwiched between said magnetic plate and said first metallic layer for diffusing light
3 emitted from said plurality of LED's.

1 15. The lighted sign as in claim 14 wherein said translucent layer includes a
2 raised portion extending through said cutout of said first metallic layer.

1 16. The lighted sign as in claim 11 further comprising a mounting plate
2 configured for fixed attachment to the vehicle surface, whereby said magnetic plate may be
3 removably and magnetically adhered to said mounting plate with said second metallic layer
4 being pressed against said mounting plate when said magnetic layer is adhered thereto.

1 17. The lighted sign as in claim 11 further comprising:
2 a microcontroller electrically connected to said light source;
3 sensor means for communicating environmental conditions to said microcontroller; and
4 means in said microcontroller for selectively energizing said plurality of LED's
5 according to respective environmental conditions.

1 18. The lighted sign as in claim 17 wherein said environmental sensors are a
2 light sensor, acceleration sensor, and a proximity sensor.

1 19. The lighted sign as in claim 12 further comprising:
2 a microcontroller electrically connected to said light source;
3 sensor means for communicating environmental conditions to said microcontroller;
4 means in said microcontroller for selectively energizing said plurality of LED's
5 according to respective environmental conditions; and
6 means in said microcontroller for selectively energizing said first and second portions
7 of said magnetic plate.

1 20. The lighted sign as in claim 12 wherein said first group of said LED's
2 positive wires are electrically connected to a first vehicle electrical power source and said
3 second group of LED's are electrically connected to a second vehicle electrical power source.